

- Application No. 10/790,113
Reply to Office Action of November 4, 2005

REMARKS/ARGUMENTS

Claims 5 and 6 are active in this case. Support for Claims 5 and 6 is found in original Claims 1 and 2; and the specification on page 6, 1st paragraph and last paragraph, the paragraph bridging pages 6-7, and Table 1 on page 14. Moreover, support for the known constitution of NCSU37 media is set forth in the specification on page 6 1st and 2nd paragraphs in addition to the Table on page 14.

No new matter is believed to have been added by the presentation of these claims.

Applicants thank Examiner Afremova for the courtesy of meeting with the Applicants' representative on January 30, 2006 to discuss the amended claim, submitted herein as Claim 5. It is believed that the claims as presented are free of the criticisms set forth in the Office Action. The substance of this discussion as it relates to the rejections in the Office Action are reiterated and expanded upon in the following remarks.

The rejection of Claims 1 and 2 under 35 USC 112, second paragraph is obviated by the cancellation of the claims. Further, Claims 5 and 6 define what is added to the medium and in what amounts. Withdrawal of this rejection is requested.

The rejection of Claims 1 and 2 under 35 USC 112, first paragraph is obviated by the cancellation of these claims. Further, while the Applicants disagree with the Examiner's characterization of the specification, Claims 5 and 6 do not include the phrase that was the basis of this rejection. Withdrawal of this rejection is requested.

The rejection of claim 1 under 35 USC 1029b) in view of Petters et al is obviated by the cancellation of claim 1. Further, Petters et al do not describe a culture medium comprising NCSU37 which glucose is removed and to which sodium lactate and pyruvate are

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added as claimed in claim 5. Rather, Petters et al describe an NCSU 37 medium containing glucose (Table 1 on page 66, col. 11 for NCSU 37 medium, row 7 for glucose—5.55 mmol/l). As the medium claimed is not the same as the medium in Petters et al, Applicants request that this rejection be withdrawn.

The rejection of Claims 1 and 2 under 35 USC 103(a) in view of Petters et al, Suzuki et al, U.S. 5,213,979 (First et al) US patent no. 5,972,592 (Suarez et al) is obviated by the cancellation of these claims. Claims 5 and 6 would not have been obvious in view of these combined disclosures because they do not suggest the medium comprising NCSU37 from which glucose is removed and having sodium lactate and pyruvate in the amounts as claimed.

As noted above, the NCSU37 media in Petters contains glucose. Further, as noted in the Office Action, Suzuki's medium also contains glucose.

While First et al and Suarez et al appear to described media without glucose those media are not NCSU37 medium as claimed.

Suzuki, First and Suarez provide not suggestion for modifying the NCSU37 media of Petters to exclude glucose and add the sodium lactate and pyruvate as claimed. For this reasons alone, the claims would not have been obvious.

Furthermore, the inventors discovered that using a culture medium containing NCSU37 media with glucose removed and added lactate and pyruvate in accordance with the present invention for “the early 2-day term of the in vitro culture (on days 0 to 2 after fertilization) highly efficiently yields blastocysts with a larger total sum number of the in vitro-produced embryo and with high quality” (see page 16, first paragraph).

The Inventors further demonstrated the efficacy of these *in vitro* produced porcine embryos to develop *in vivo* in Example 4 on pages 19-20. These data show that when the cultured embryo prepared according to the present invention was transferred into female

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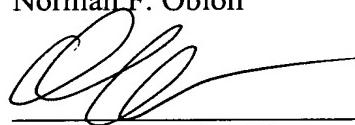
porcine recipients, all of the animals became pregnant and produced a number of living piglets.

In view of the above, Applicants request withdrawal of the rejection under 35 U.S.C. § 103(a).

Allowance of all pending claims is also requested.

Respectfully submitted,

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